

# Pro-fax SG802N

## Polypropylene Impact Copolymer

### LyondellBasell Industries



Prospector

#### Product Description

"Pro-fax" SG802N high flow, high impact polypropylene copolymer resin is designed for injection molding applications. This resin is available in pellet form.

#### General

|                   |                                                                                 |
|-------------------|---------------------------------------------------------------------------------|
| Material Status   | • Commercial: Active                                                            |
| Availability      | • North America                                                                 |
| Features          | • Good Stiffness • High Flow • Low Temperature Impact Resistance                |
| Uses              | • Automotive Applications • Automotive Interior Parts • Industrial Applications |
| Forms             | • Pellets                                                                       |
| Processing Method | • Injection Molding                                                             |

| Physical                                  | Nominal Value (English) | Nominal Value (SI)      | Test Method |
|-------------------------------------------|-------------------------|-------------------------|-------------|
| Specific Gravity                          |                         |                         |             |
| --                                        | 0.902                   | 0.900 g/cm <sup>3</sup> | ASTM D792B  |
| --                                        | 0.900 g/cm <sup>3</sup> | 0.900 g/cm <sup>3</sup> | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 35 g/10 min             | 35 g/10 min             | ASTM D1238  |

| Mechanical             | Nominal Value (English) | Nominal Value (SI) | Test Method |
|------------------------|-------------------------|--------------------|-------------|
| Tensile Strength       |                         |                    |             |
| Yield <sup>2</sup>     | 3100 psi                | 21.4 MPa           | ASTM D638   |
| Yield, 73°F (23°C)     | 3050 psi                | 21.0 MPa           | ISO 527-2   |
| Tensile Elongation     |                         |                    |             |
| Yield                  | 5.0 %                   | 5.0 %              | ASTM D638   |
| Yield, 73°F (23°C)     | 4.0 %                   | 4.0 %              | ISO 527-2   |
| Flexural Modulus       |                         |                    |             |
| 1% Secant <sup>3</sup> | 160000 psi              | 1100 MPa           | ASTM D790A  |
| 73°F (23°C)            | 160000 psi              | 1100 MPa           | ISO 178     |

| Films                             | Nominal Value (English) | Nominal Value (SI) | Test Method     |
|-----------------------------------|-------------------------|--------------------|-----------------|
| Dart Drop Test                    |                         |                    | Internal Method |
| -20°F (-29°C), Drop Weight Impact | 35 ft-lb                | 47 J               |                 |

| Impact                         | Nominal Value (English)    | Nominal Value (SI)     | Test Method |
|--------------------------------|----------------------------|------------------------|-------------|
| Charpy Notched Impact Strength |                            |                        | ISO 179     |
| -40°F (-40°C)                  | 2.0 ft-lb/in <sup>2</sup>  | 4.3 kJ/m <sup>2</sup>  |             |
| 73°F (23°C)                    | 5.2 ft-lb/in <sup>2</sup>  | 11 kJ/m <sup>2</sup>   |             |
| Notched Izod Impact            |                            |                        |             |
| 73°F (23°C)                    | 2.40 ft-lb/in              | 128 J/m                | ASTM D256A  |
| -40°F (-40°C)                  | 2.33 ft-lb/in <sup>2</sup> | 4.90 kJ/m <sup>2</sup> | ISO 180     |
| 73°F (23°C)                    | 4.76 ft-lb/in <sup>2</sup> | 10.0 kJ/m <sup>2</sup> | ISO 180     |

| Thermal                                         | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-------------------------------------------------|-------------------------|--------------------|-------------|
| Deflection Temperature Under Load               |                         |                    |             |
| 66 psi (0.45 MPa), Unannealed, Injection Molded | 219 °F                  | 104 °C             | ASTM D648   |
| 66 psi (0.45 MPa), Unannealed                   | 194 °F                  | 90.0 °C            | ISO 75-2/B  |
| 264 psi (1.8 MPa), Unannealed                   | 124 °F                  | 51.0 °C            | ISO 75-2/A  |

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 2.0 in/min (51 mm/min)

<sup>3</sup> 0.050 in/min (1.3 mm/min)